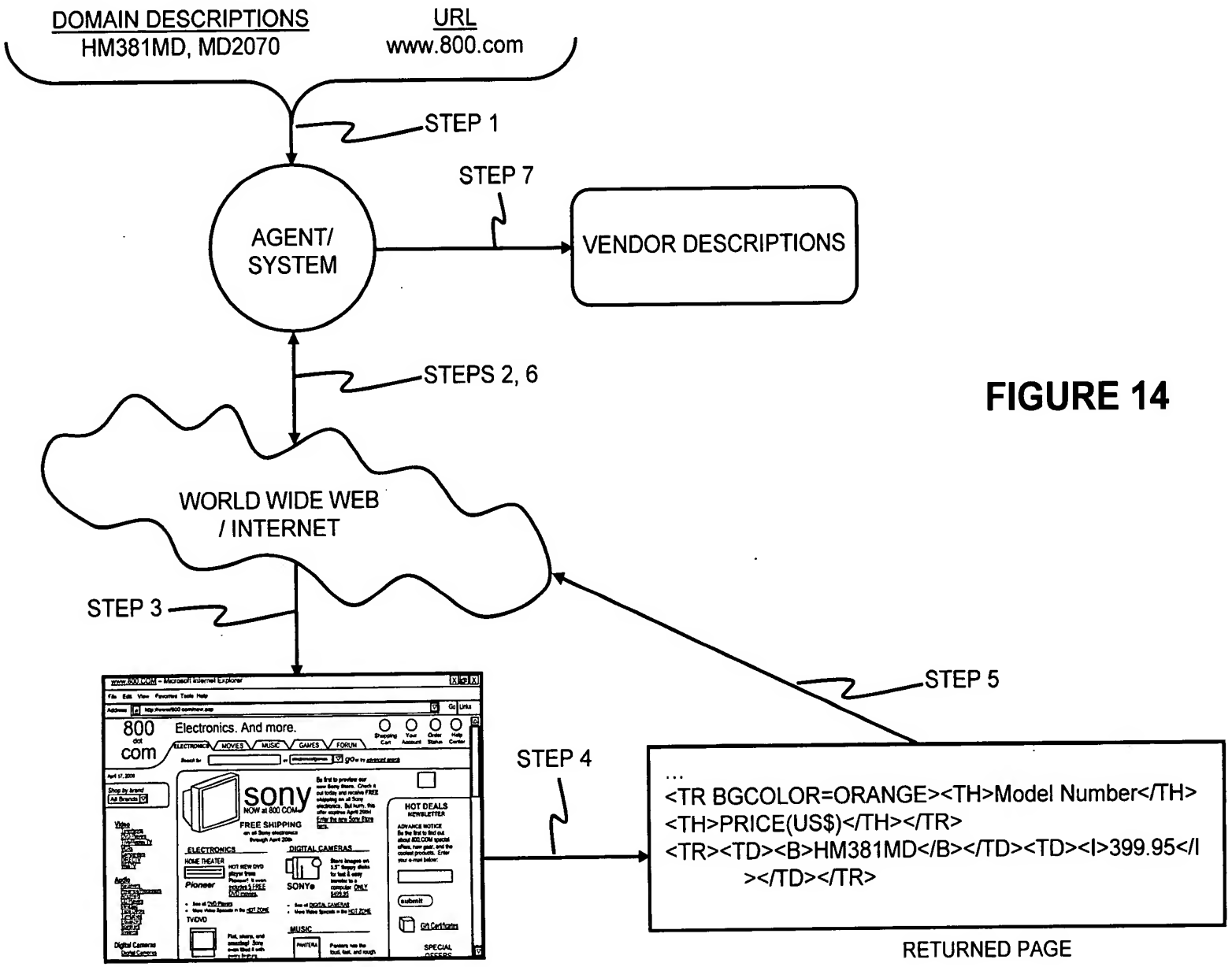
DOMAIN DESCRIPTIONS
HM381MD, MD2070
URL
www.800.com
STEP 1
STEP 7
AGENT/
SYSTEM
VENDOR DESCRIPTIONS
STEPS 2, 6
WORLD WIDE WEB
/ INTERNET
STEP 3
STEP 5
STEP 4
800 dot com
Electronics. And more.
sony
FREE SHIPPING
...
<TR BGCOLOR=ORANGE><TH>Model Number</TH>
<TH>PRICE(US$)</TH></TR>
<TR><TD><B>HM381MD</B></TD><TD><I>399.95</I
></TD></TR>
RETURNED PAGE

**FIGURE 14**

Appln. No. 10/810,432
Notice of Allowance mailed 9-5-08
Replacement Sheet 2 of 25

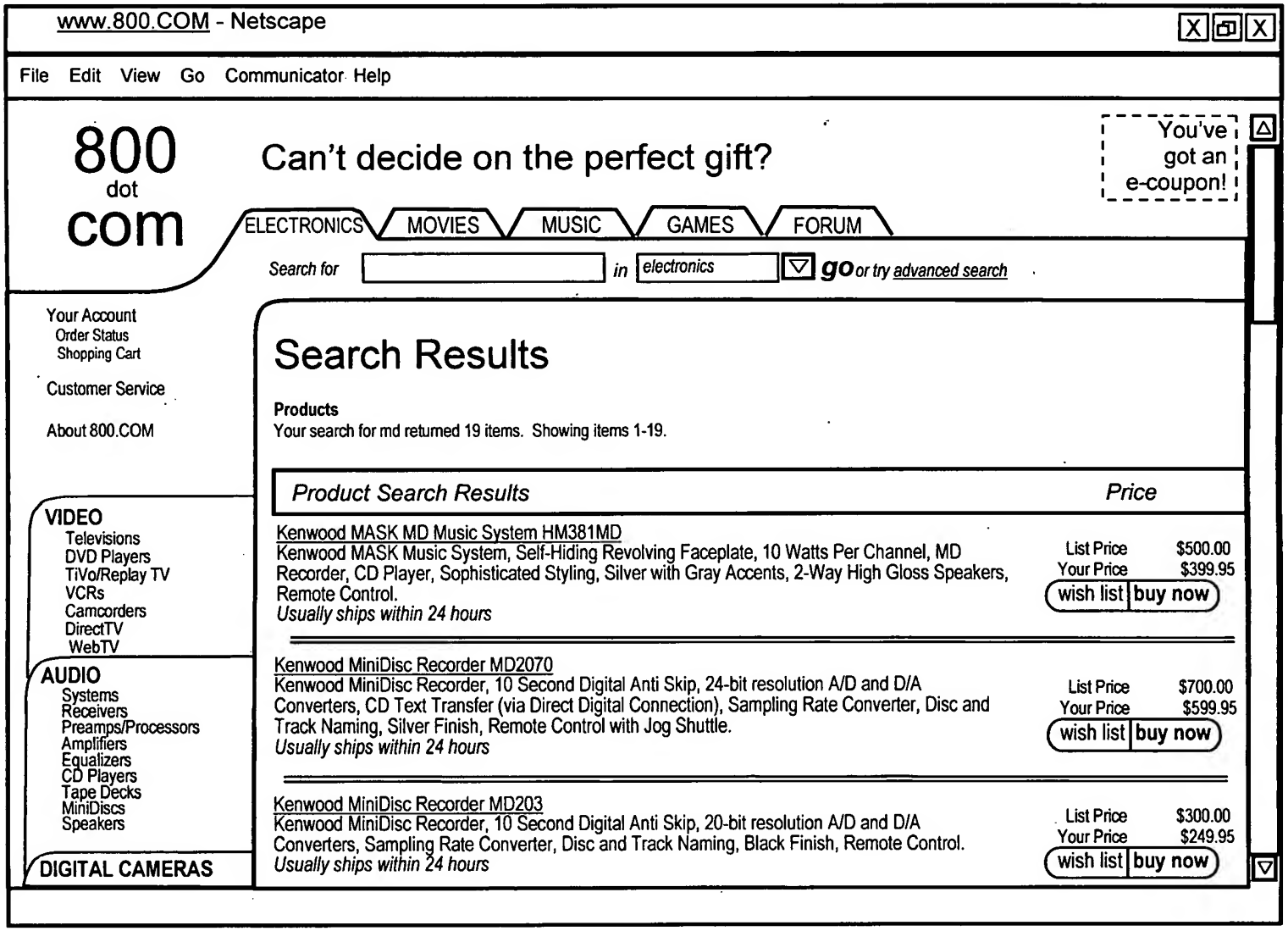


FIGURE 15A

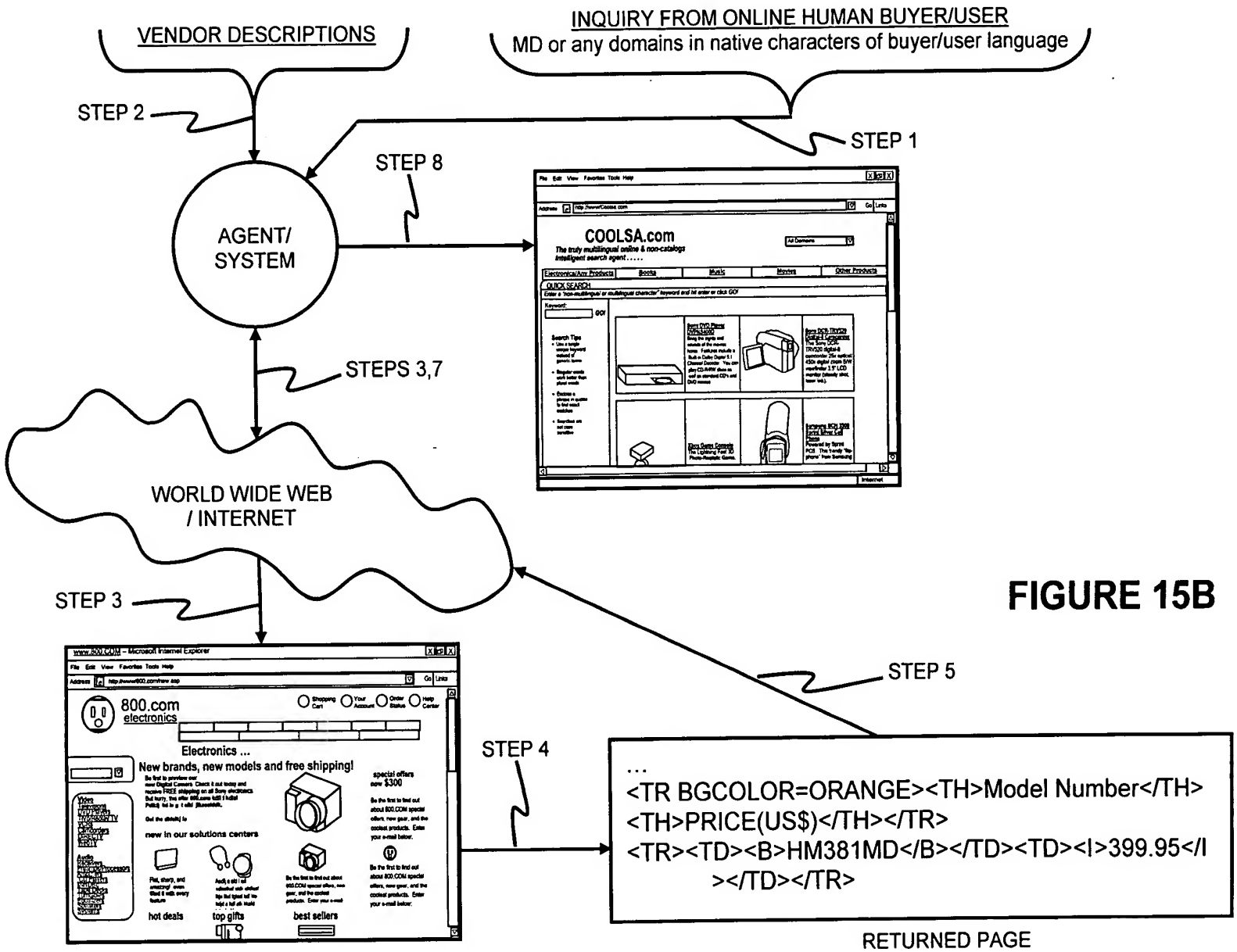
VENDOR DESCRIPTIONS
INQUIRY FROM ONLINE HUMAN BUYER/USER
MD or any domains in native characters of buyer/user language
STEP 2
STEP 1
STEP 8
AGENT/
SYSTEM
COOLSA.com
STEPS 3,7
WORLD WIDE WEB
/ INTERNET
STEP 3
STEP 5
STEP 4
800.com
electronics
Electronics ...
New brands, new models and free shipping!
hot deals
top gifts
best sellers
...
<TR BGCOLOR=ORANGE><TH>Model Number</TH>
<TH>PRICE(US$)</TH></TR>
<TR><TD><B>HM381MD</B></TD><TD><I>399.95</I
></TD></TR>
RETURNED PAGE

**FIGURE 15B**

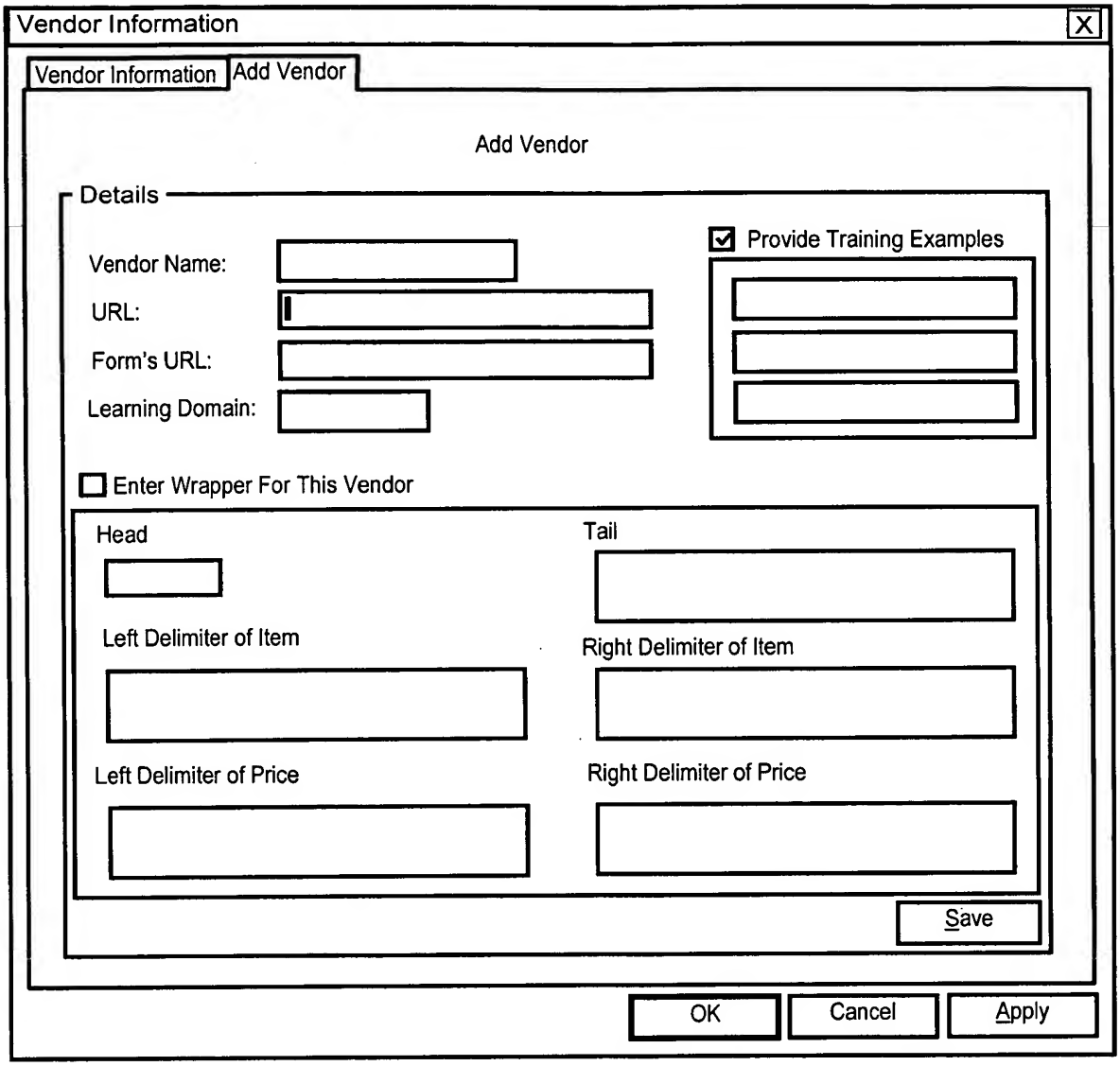
Vendor Information
Vendor Information
Add Vendor
Add Vendor
Details
Vendor Name:
URL:
Form's URL:
Learning Domain:
Provide Training Examples
Enter Wrapper For This Vendor
Head
Tail
Left Delimiter of Item
Right Delimiter of Item
Left Delimiter of Price
Right Delimiter of Price
Save
OK
Cancel
Apply

**FIGURE 16**

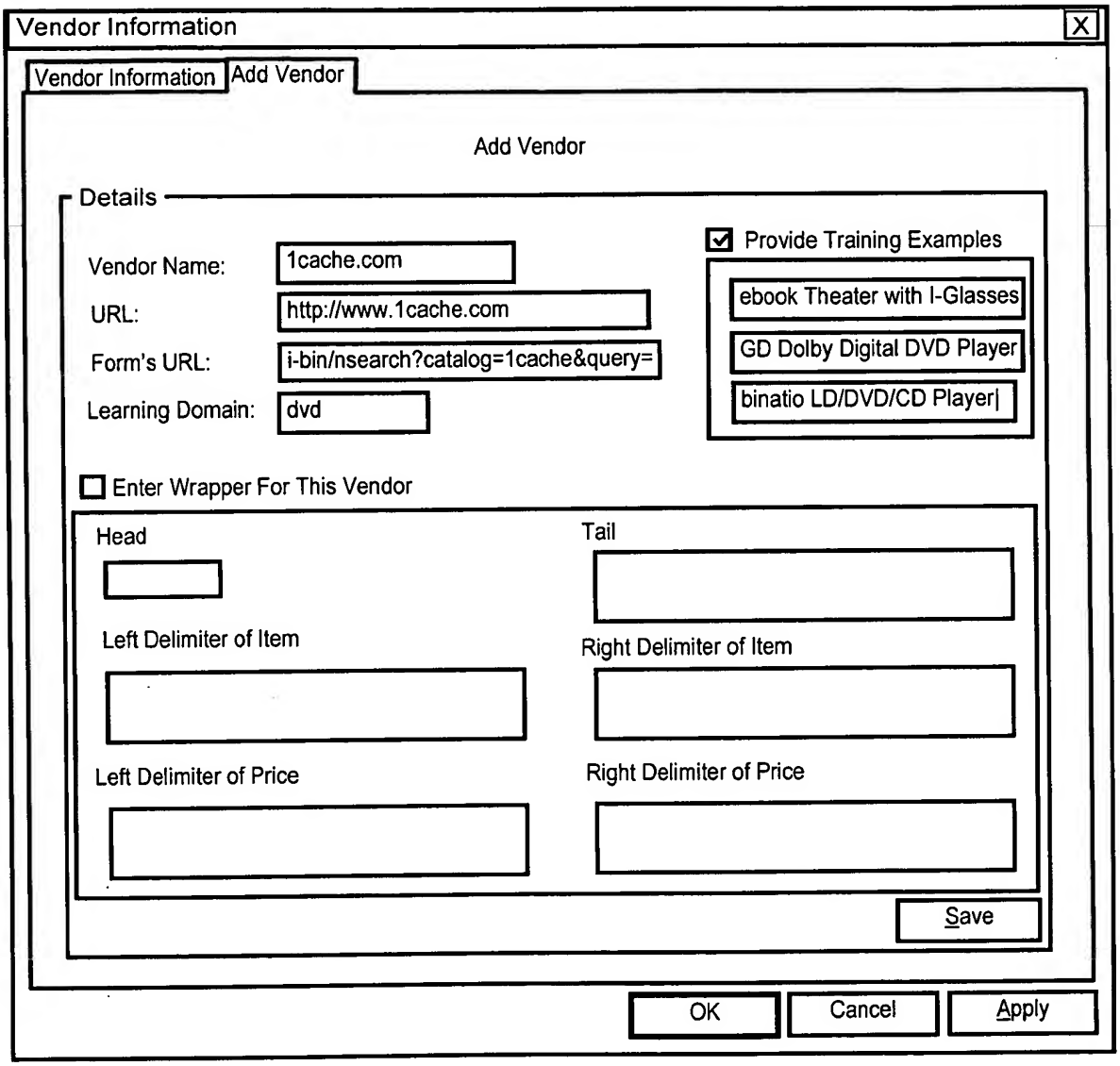
Vendor Information
X
Vendor Information
Add Vendor
Add Vendor
Details
Vendor Name:
1cache.com
URL:
http://www.1cache.com
Form's URL:
i-bin/nsearch?catalog=1cache&query=
Learning Domain:
dvd
Provide Training Examples
ebook Theater with I-Glasses
GD Dolby Digital DVD Player
binatio LD/DVD/CD Player
Enter Wrapper For This Vendor
Head
Tail
Left Delimiter of Item
Right Delimiter of Item
Left Delimiter of Price
Right Delimiter of Price
Save
OK
Cancel
Apply

**FIGURE 17**

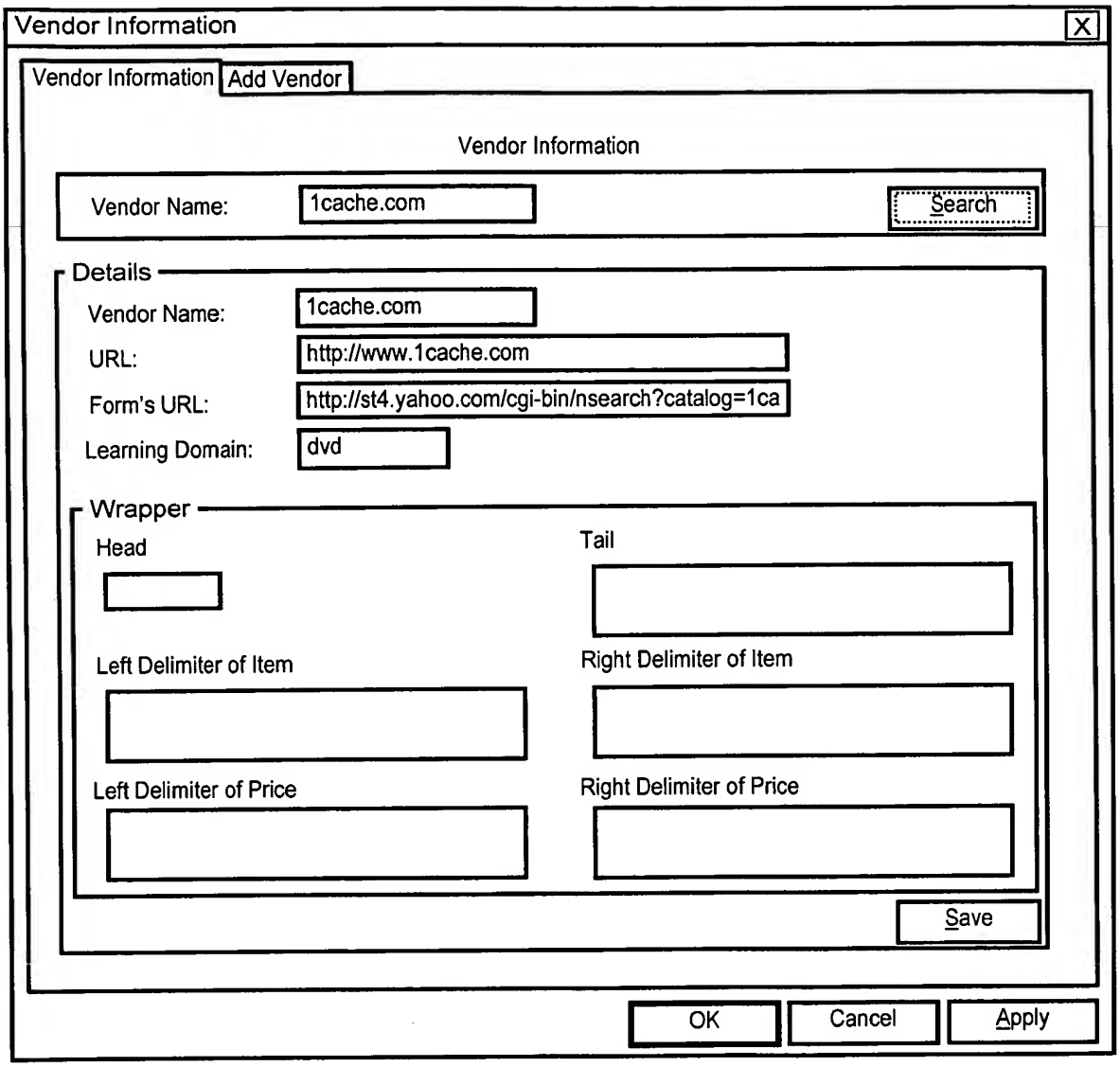
Vendor Information
Vendor Information
Add Vendor
Vendor Information
Vendor Name:
1cache.com
Search
Details
Vendor Name:
1cache.com
URL:
http://www.1cache.com
Form's URL:
http://st4.yahoo.com/cgi-bin/nsearch?catalog=1ca
Learning Domain:
dvd
Wrapper
Head
Tail
Left Delimiter of Item
Right Delimiter of Item
Left Delimiter of Price
Right Delimiter of Price
Save
OK
Cancel
Apply

**FIGURE 18**

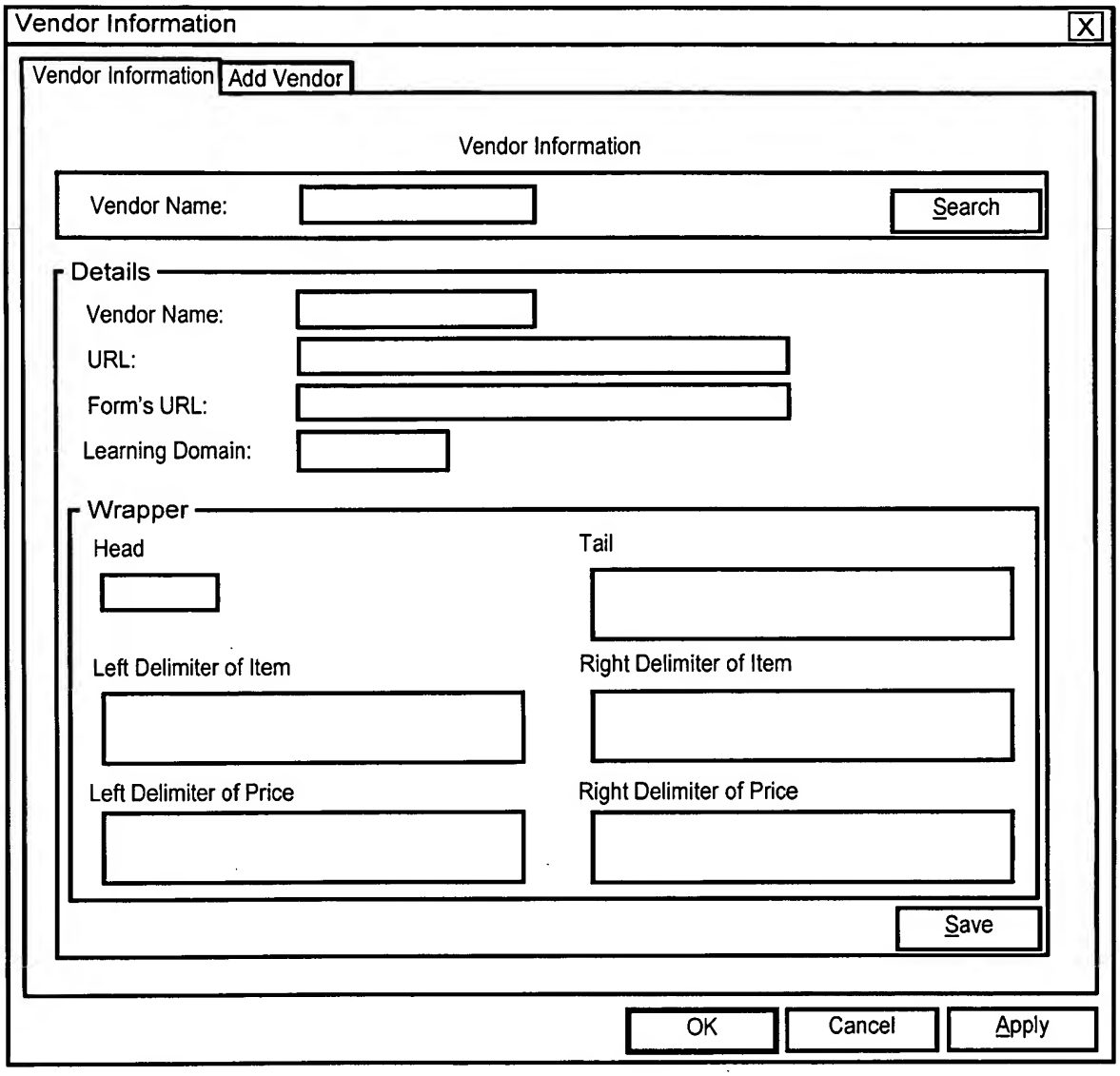
Vendor Information
X
Vendor Information
Add Vendor
Vendor Information
Vendor Name:
Search
Details
Vendor Name:
URL:
Form's URL:
Learning Domain:
Wrapper
Head
Tail
Left Delimiter of Item
Right Delimiter of Item
Left Delimiter of Price
Right Delimiter of Price
Save
OK
Cancel
Apply

**FIGURE 19**

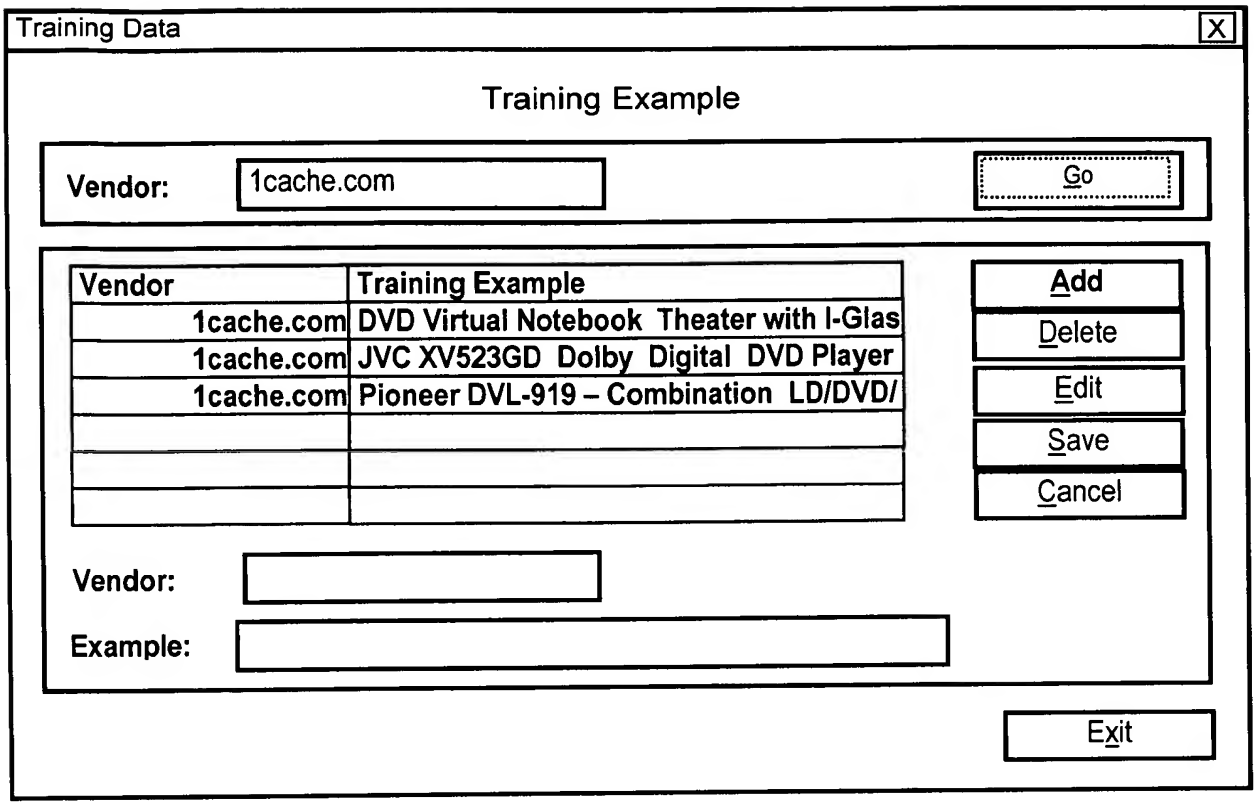


**FIGURE 20**

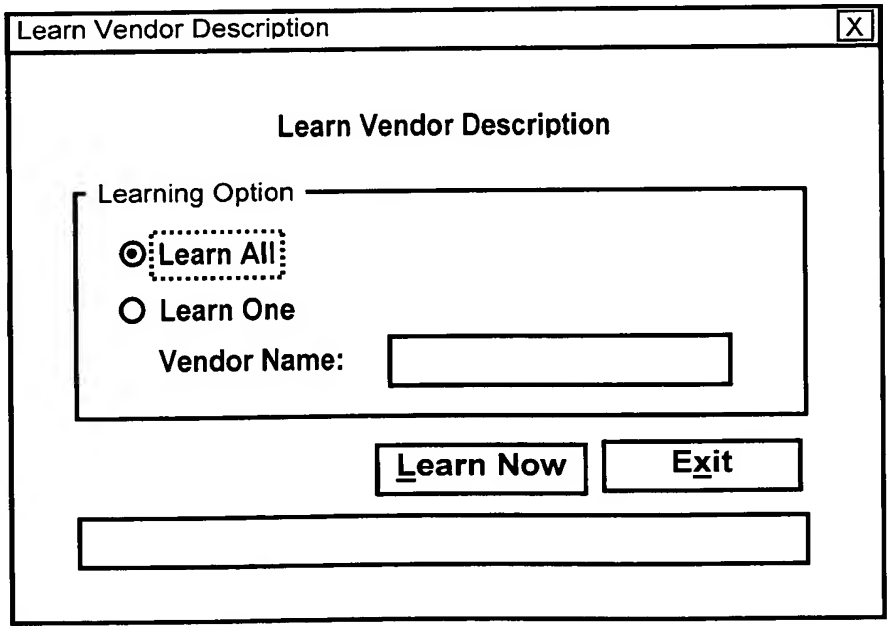


**FIGURE 21**

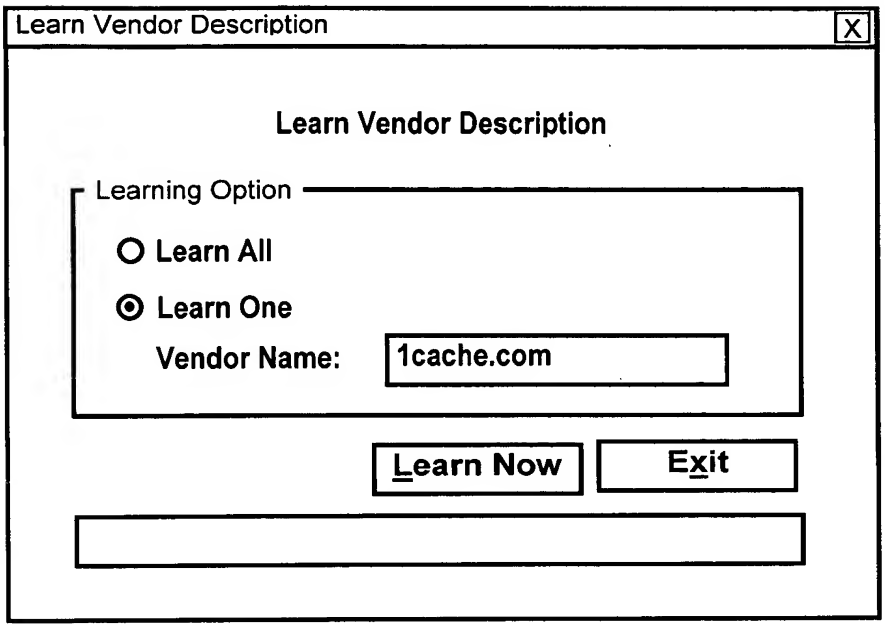
Learn Vendor Description
X
Learn Vendor Description
Learning Option
Learn All
Learn One
Vendor Name:
1cache.com
Learn Now
Exit

FIGURE 22

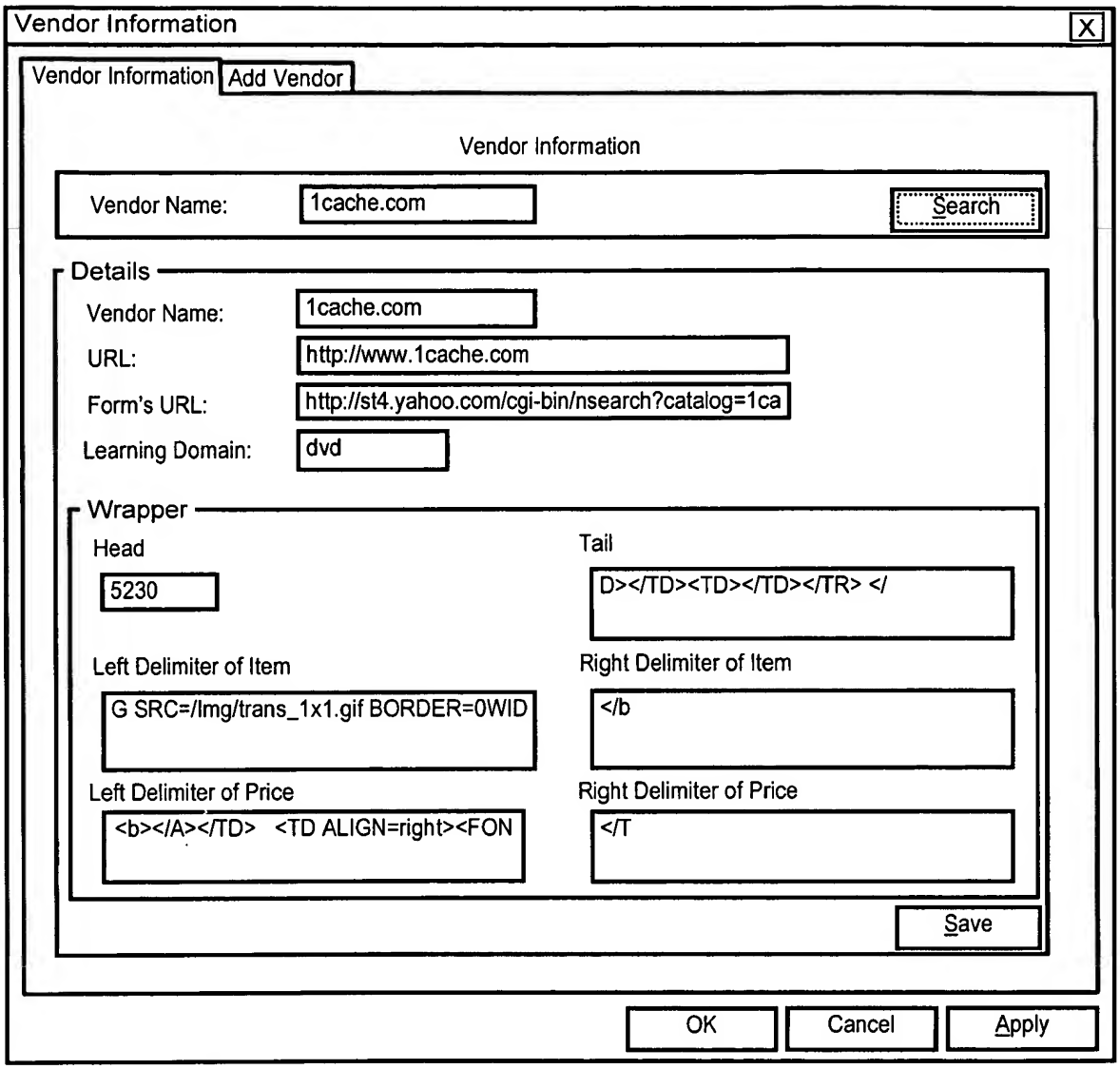
Vendor Information
Vendor Information
Add Vendor
Vendor Information
Vendor Name:
1cache.com
Search
Details
Vendor Name:
1cache.com
URL:
http://www.1cache.com
Form's URL:
http://st4.yahoo.com/cgi-bin/nsearch?catalog=1ca
Learning Domain:
dvd
Wrapper
Head
5230
Tail
D></TD><TD></TD></TR> </
Left Delimiter of Item
G SRC=/Img/trans_1x1.gif BORDER=0WID
Right Delimiter of Item
</b
Left Delimiter of Price
<b></A></TD> <TD ALIGN=right><FON
Right Delimiter of Price
</T
Save
OK
Cancel
Apply

**FIGURE 23**

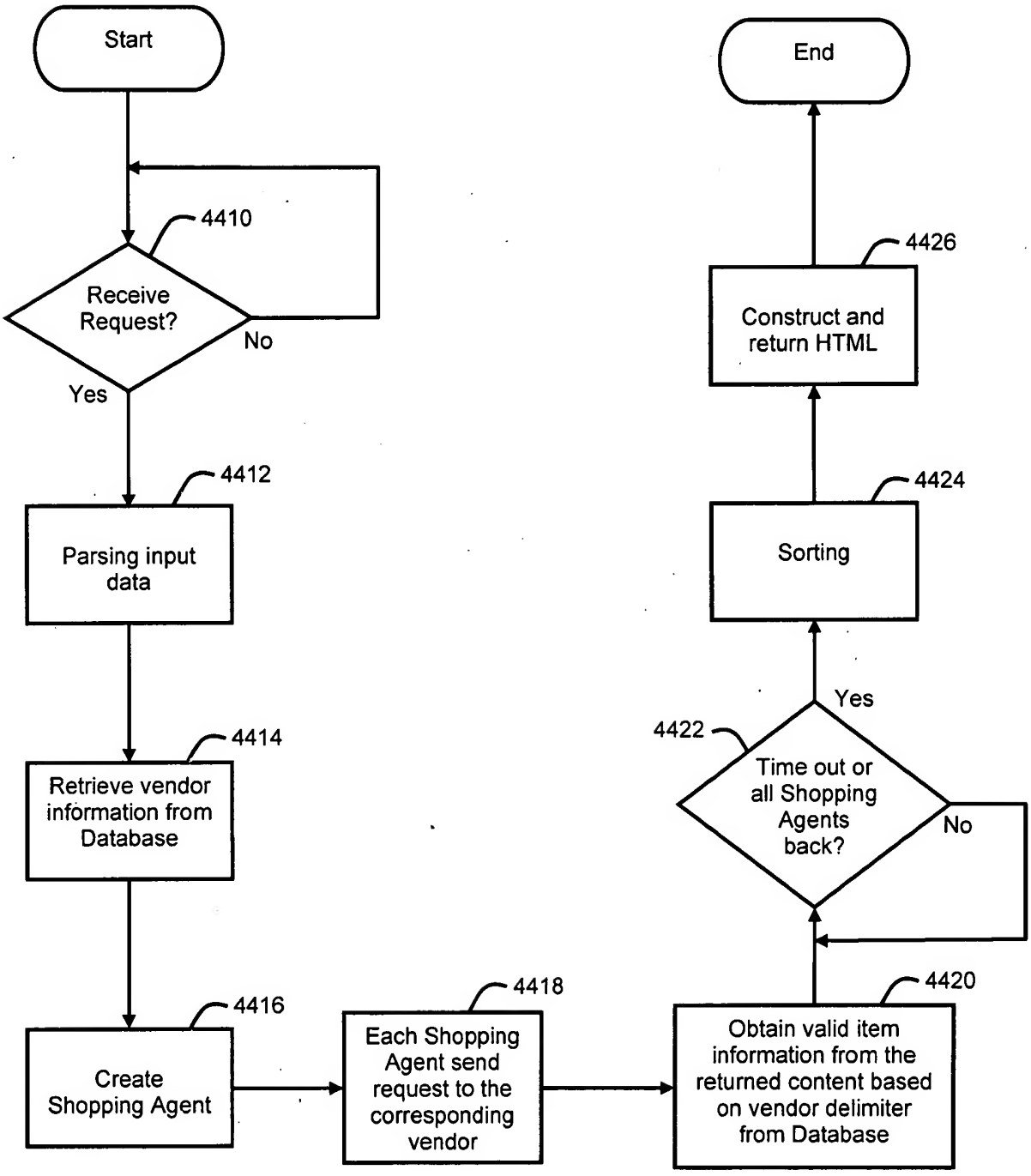
Start
4410
Receive Request?
No
Yes
4412
Parsing input data
4414
Retrieve vendor information from Database
4416
Create Shopping Agent
4418
Each Shopping Agent send request to the corresponding vendor
4420
Obtain valid item information from the returned content based on vendor delimiter from Database
4422
Time out or all Shopping Agents back?
Yes
No
4424
Sorting
4426
Construct and return HTML
End

FIG. 44

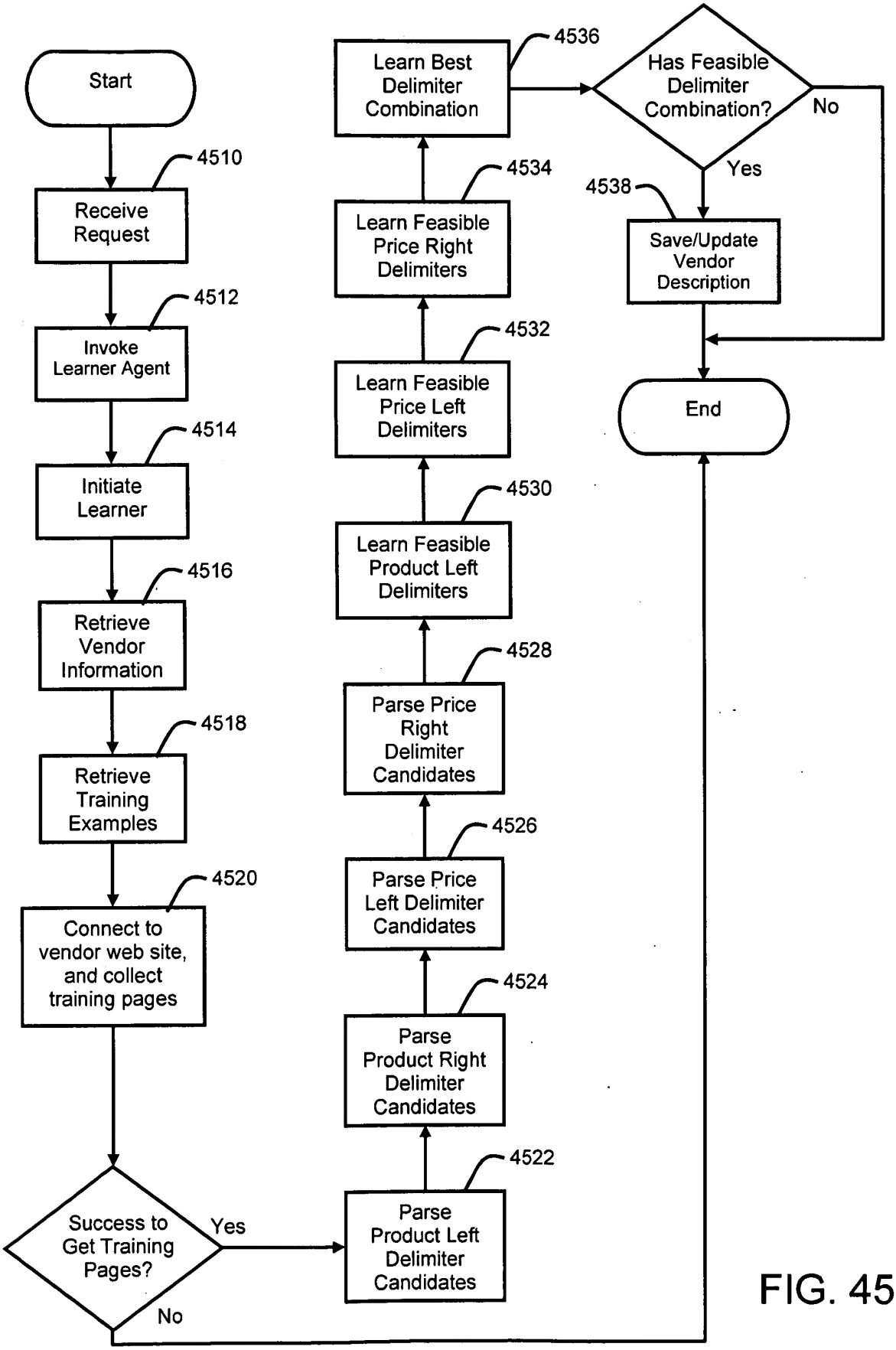
Start
4510
Receive Request
4512
Invoke Learner Agent
4514
Initiate Learner
4516
Retrieve Vendor Information
4518
Retrieve Training Examples
4520
Connect to vendor web site, and collect training pages
Success to Get Training Pages?
Yes
No
4522
Parse Product Left Delimiter Candidates
4524
Parse Product Right Delimiter Candidates
4526
Parse Price Left Delimiter Candidates
4528
Parse Price Right Delimiter Candidates
4530
Learn Feasible Product Left Delimiters
4532
Learn Feasible Price Left Delimiters
4534
Learn Feasible Price Right Delimiters
4536
Learn Best Delimiter Combination
Has Feasible Delimiter Combination?
No
Yes
4538
Save/Update Vendor Description
End

FIG. 45

| Data Field | Description | Allowed Value |
|---|---|---|
| Country ID | Distinct Country Name | Any |
| Country Name | Display Name of the Country. | Any |
| Encoding | Display MIME type of the Web sites in this country. | Valid MIME Type, A pull-down list of MIME Type is provided for selection |

FIGURE 46

COOLSA Administration Console

Country | Vendor

**List Of Countries**

List of Countries

| Country ID | Country Name | Encoding | Action |
|---|---|---|---|
| zh_TW | Taiwan | Big5 | Delete |
| Norway | Norway | 8859_1 | Delete |
| Brazil | Brazil | 8859_1 | Delete |
| Belgium | Belgium | 8859_1 | Delete |
| Poland | Poland | UTF8 | Delete |
| zh_HK | Hong Kong SAR | Big5 | Delete |
| United Arab Emirates | United Arab Emirates | 8859_1 | Delete |
| UK | United Kingdom | 8859_1 | Delete |
| en_US | United States | 8859_1 | Delete |
| India | India | 8859_1 | Delete |
| Thailand | Thailand | 8859_1 | Delete |
| Croatia | Croatia | 8859_1 | Delete |

FIGURE 48

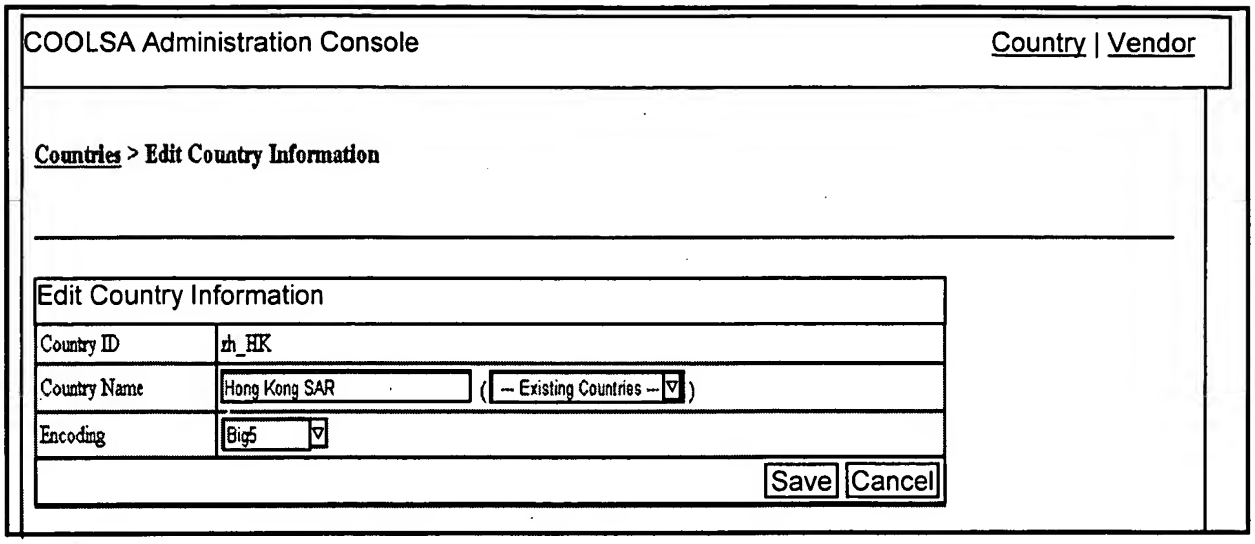


FIGURE 49

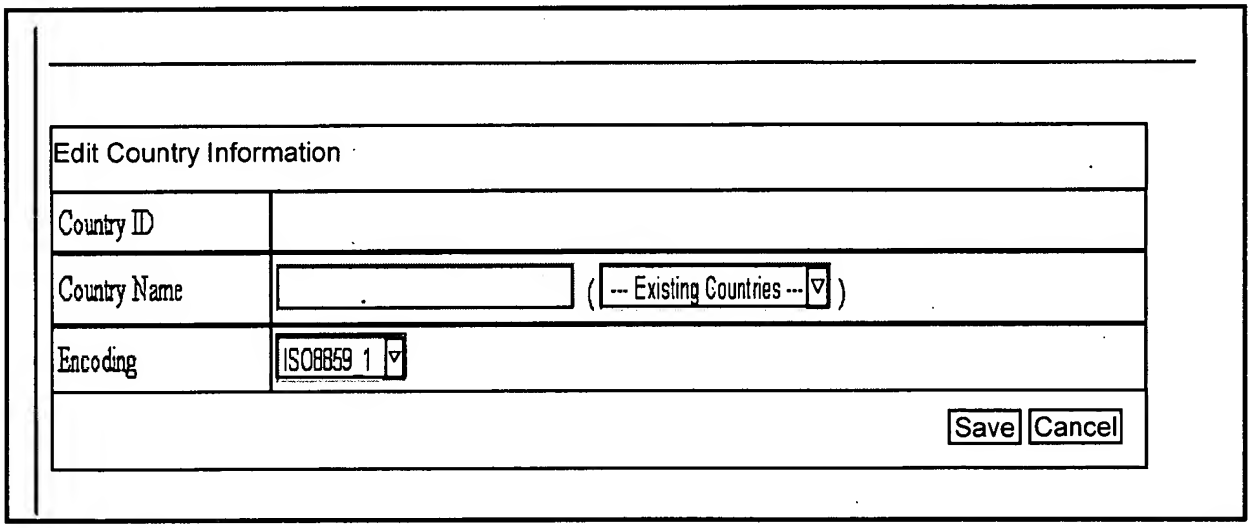


FIGURE 50

| Data Field | Description | Allowed Value |
|---|---|---|
| Vendor ID | Distinct Vendor ID | System generated |
| Vendor Name | Display Name of the Vendor. | Any |
| Description | Vendor Description | Any |
| URL | Vendor URL | Valid URL |
| Form URL | Vendor Form URL | Valid URL |
| Country | Country where the vendor sell the products | A pull-down list of country is provided for selection |
| Currency | Currency which the vendor used for the price of the products | A pull-down list of currency is provided for selection |

# FIGURE 51

COOLSA Administration Console  Country | Vendor

**List of Vendors**

**List of Vendors** -- All Countries -- ▽  Add

| Vendor ID | Vendor Name | Description | URL | Country | Currency |
|---|---|---|---|---|---|
| 59 | Elggigaten | Norway shop | http://www.elgiganten.no/ | Norway | |
| 58 | Quelle | Germany shop | http://www.quelle.de/ | Germany | € |
| 57 | OTTO | Germany shop | http://www.neu.otto.de | Germany | EUR |
| 56 | Trend Machine | Germany shop | http://store.europe.yahoo.com/trendmachine/index.html | Germany | EUR |
| 55 | Media World | Italy shop | http:// store.europe.yahoo.com/mediaworld/index.html | Italy | € |
| 54 | Piazzaerbe | Italy shop | http:// store.europe.yahoo.com/piazzaerbe/ | Italy | € |
| 53 | Alcosto | Italy shop | http://www.alcosto.it | Italy | € |
| 51 | Vistek | Canadian shop | http://www.vistek.ca | Canada | $ |
| 50 | HBC Online | Canadian shop | http://www.hbc.com/ | Canada | $ |
| 49 | Red dots | One of the largest aution site in HK | http://www.red-dots.com/ | Hong Kong SAR | HK$ |
| 48 | HK Yahoo Auction | One of the largest aution site in HK | http://hk.auctions.yahoo.com/ | Hong Kong SAR | HK$ |
| 47 | Go to HK | One of the largest aution site in HK | http://www.go2hk.com | Hong | HK$ |

# FIGURE 53

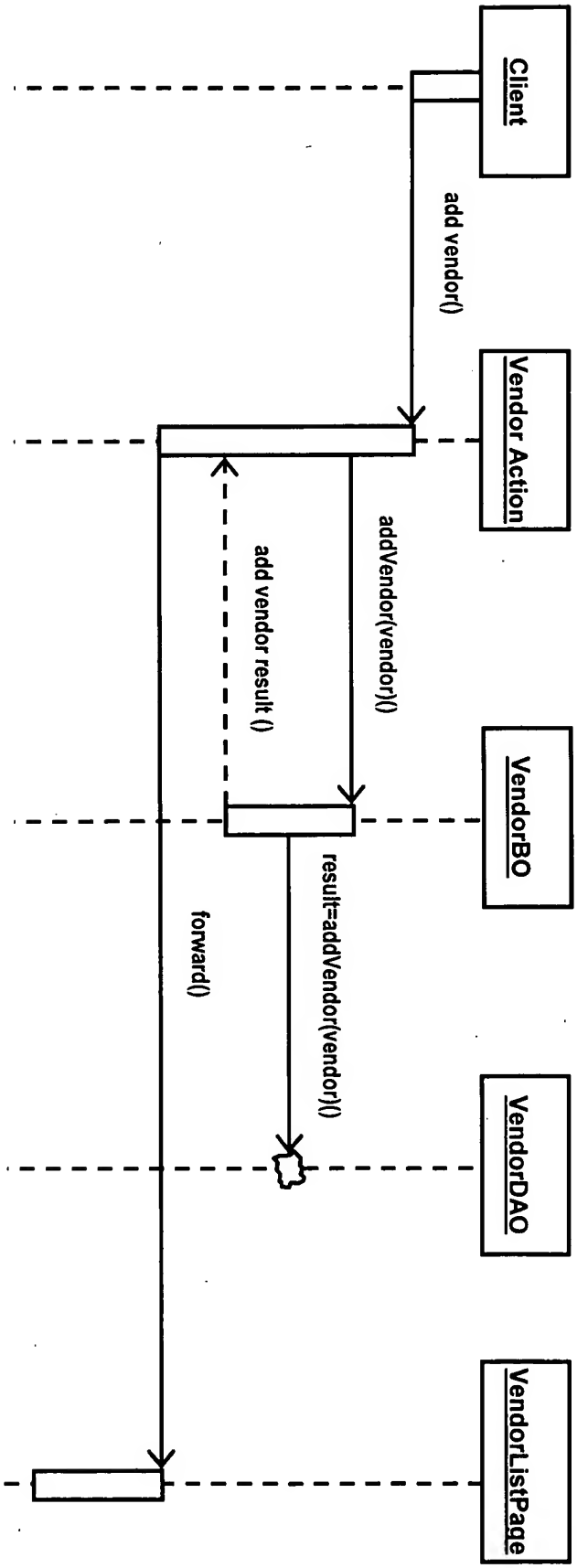
Client
Vendor Action
VendorBO
VendorDAO
VendorListPage
add vendor()
addVendor(vendor)()
add vendor result ()
result=addVendor(vendor)()
forward()

FIGURE 52

COOLSA Administration Console

Country | Vendor

**List of Vendors** United States ▽ Add

| Vendor ID | Vendor Name | Description | URL | Country | Currency |
|---|---|---|---|---|---|
| 35 | Best Buy Digital | | http://www.bestbuydigital.com | United States | US$ |
| 36 | Brandsmall.com | | http://www.brandsmall.com | United States | US$ |
| 18 | buydig.com | | http://www.buydig.com | United States | US$ |
| 19 | clubmac.com | | http://www.clubmac.com/clubmac/ | United States | US$ |
| 37 | Compuvisor | Computer & Electronics Wholesale Superstore | http:// www.compuvisor.com/ | United States | US$ |
| 20 | direct.mwave.com | | http:// direct.mwave.com | United States | US$ |
| 10009 | eBay | | http://www.ebay.com | United States | US$ |
| 38 | Meritline | Compactflash, Smartmedia card, DVD-R, CD-R, Ink jet cartridges | http://www.Meritline.com | United States | US$ |
| 17 | msn.com | | http://www.eshop.msn.com | United States | $ |
| 21 | pcrush.com | | http://www.pcrush.com/ | United States | US$ |
| 39 | Shop4tech.net | cheap CD-R, DVD-R, Compact Flash, Computer Desk, ink cartridges | Shop4tech.net | United States | US$ |
| 33 | Tek Gallery | | http://www.tekgallery.com/ | United States | $ |
| 40 | Vio Software | Best Price on Microsoft, Adobe, Corel, Symantec Software | http://www.viosoftware.com | United States | US$ |
| 34 | Walmart | | http://www.walmart.com/ | United States | US$ |

**FIGURE 54**

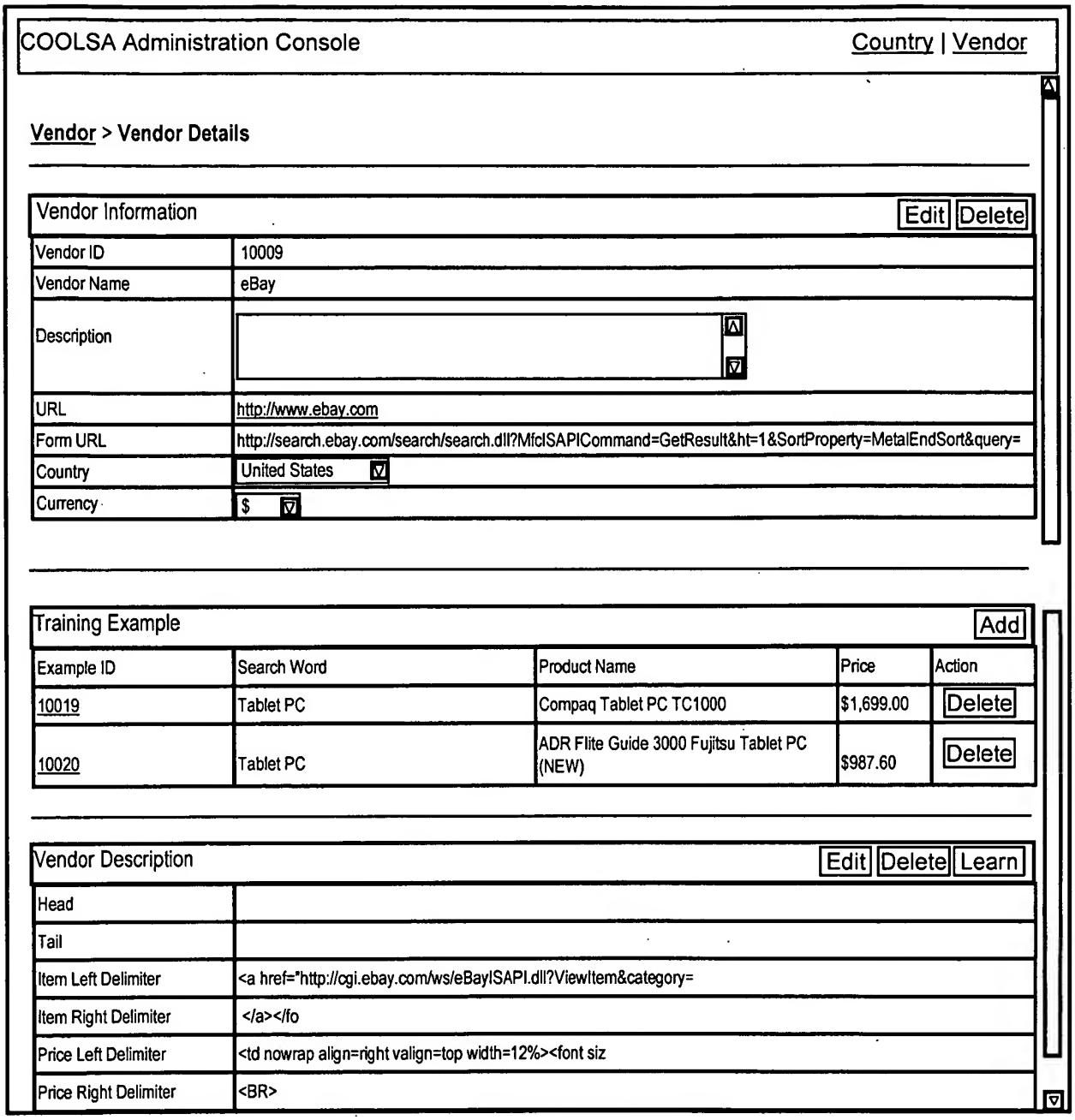
COOLSA Administration Console
Country | Vendor
Vendor > Vendor Details
Vendor Information
Edit
Delete
Vendor ID
10009
Vendor Name
eBay
Description
URL
http://www.ebay.com
Form URL
http://search.ebay.com/search/search.dll?MfcISAPICommand=GetResult&ht=1&SortProperty=MetalEndSort&query=
Country
United States
Currency
$
Training Example
Add
Example ID
Search Word
Product Name
Price
Action
10019
Tablet PC
Compaq Tablet PC TC1000
$1,699.00
Delete
10020
Tablet PC
ADR Flite Guide 3000 Fujitsu Tablet PC (NEW)
$987.60
Delete
Vendor Description
Edit
Delete
Learn
Head
Tail
Item Left Delimiter
<a href="http://cgi.ebay.com/ws/eBayISAPI.dll?ViewItem&category=
Item Right Delimiter
</a></fo
Price Left Delimiter
<td nowrap align=right valign=top width=12%><font siz
Price Right Delimiter
<BR>

**FIGURE 55**

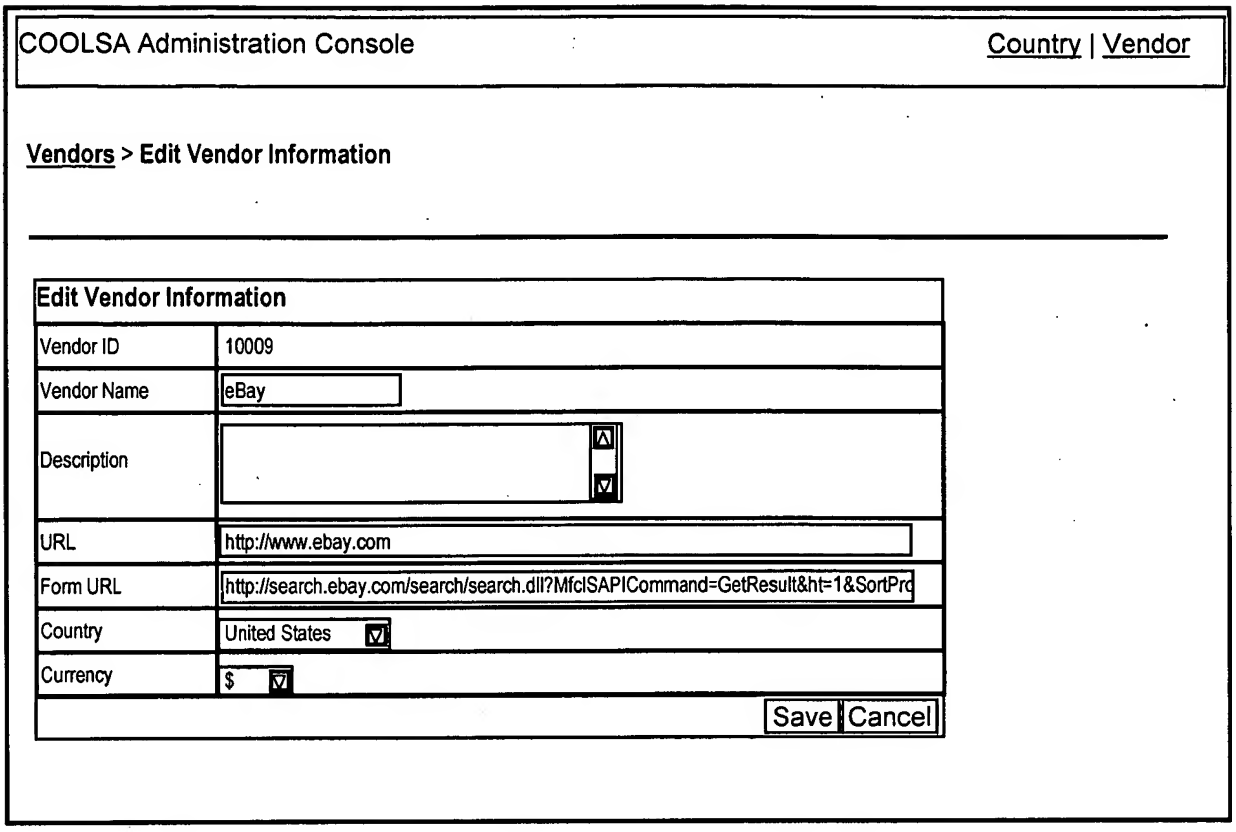
COOLSA Administration Console
Country | Vendor
Vendors > Edit Vendor Information
Edit Vendor Information
Vendor ID
10009
Vendor Name
eBay
Description
URL
http://www.ebay.com
Form URL
http://search.ebay.com/search/search.dll?MfcISAPICommand=GetResult&ht=1&SortPrc
Country
United States
Currency
$
Save
Cancel

FIGURE 56

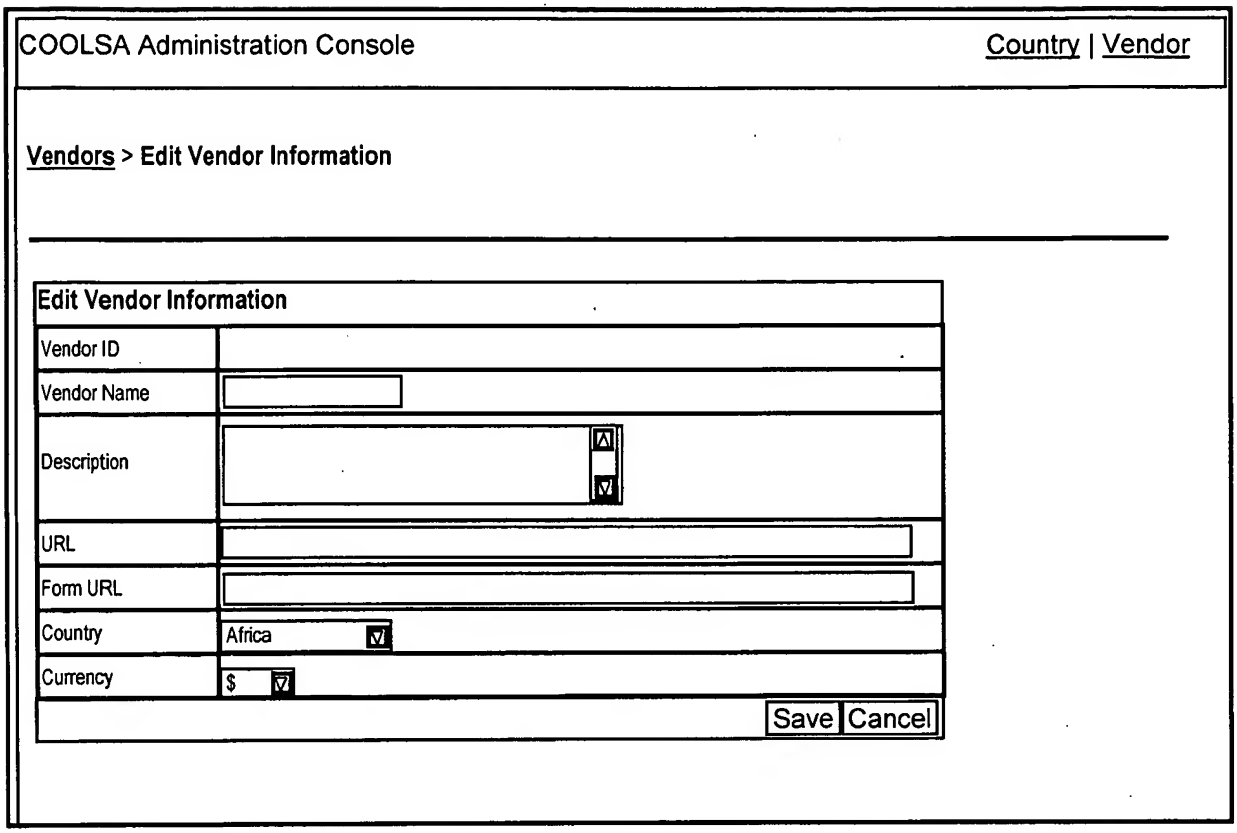
COOLSA Administration Console
Country | Vendor
Vendors > Edit Vendor Information
Edit Vendor Information
Vendor ID
Vendor Name
Description
URL
Form URL
Country
Africa
Currency
$
Save
Cancel

FIGURE 57

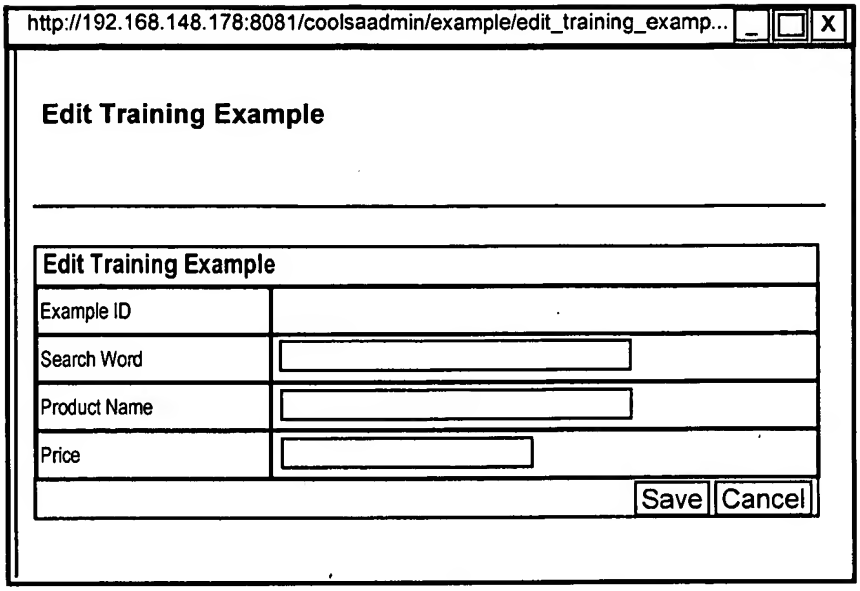


FIGURE 58

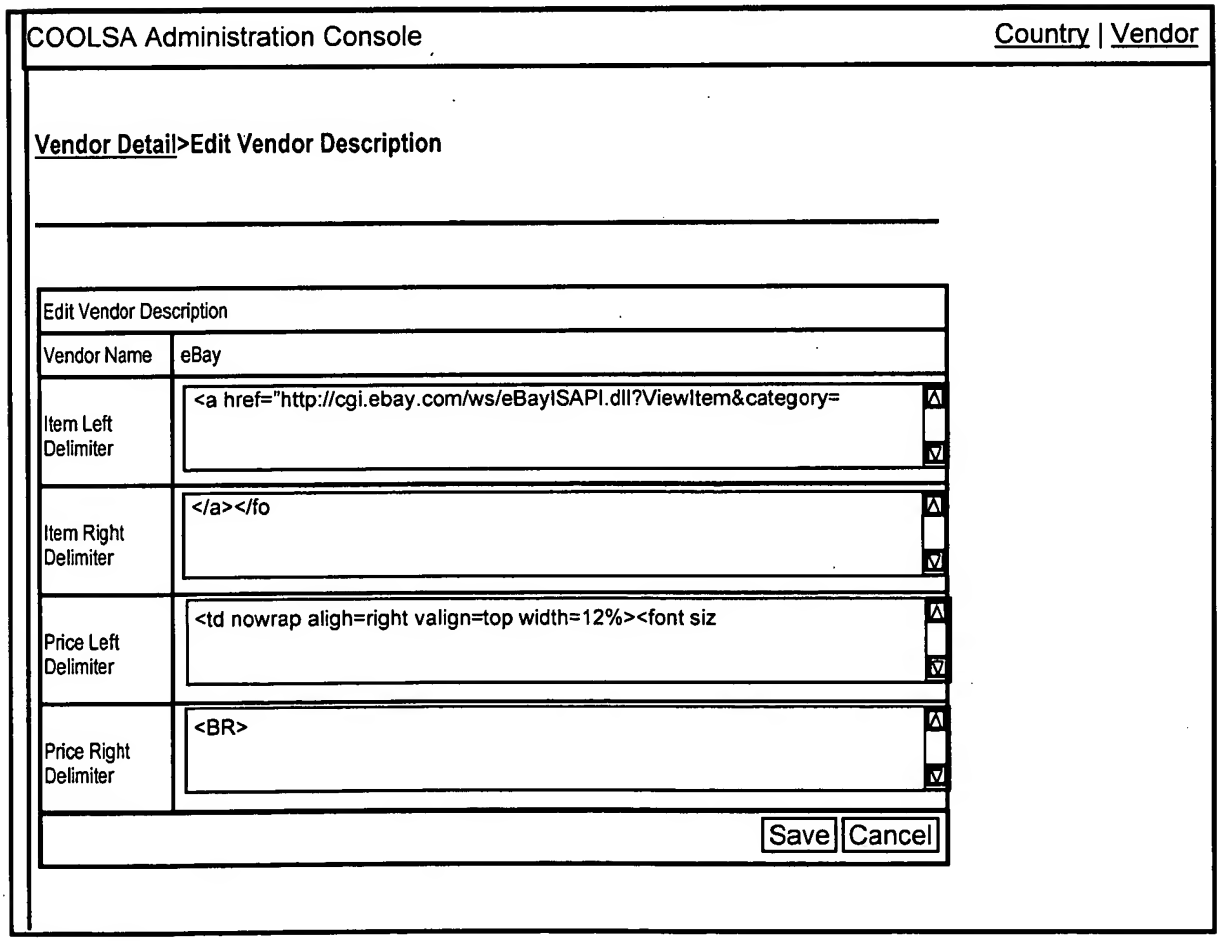


FIGURE 59

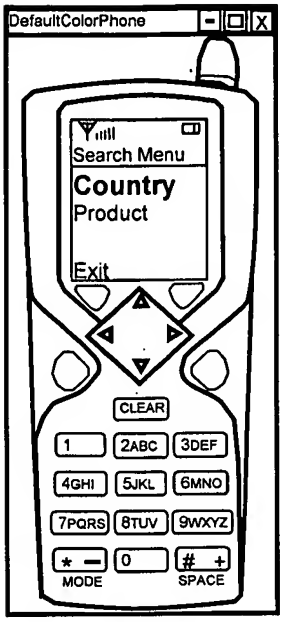


FIGURE 60A

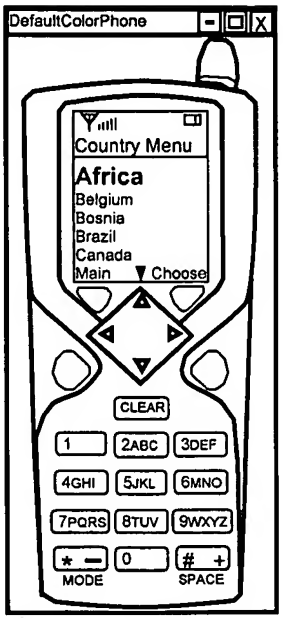


FIGURE 60B

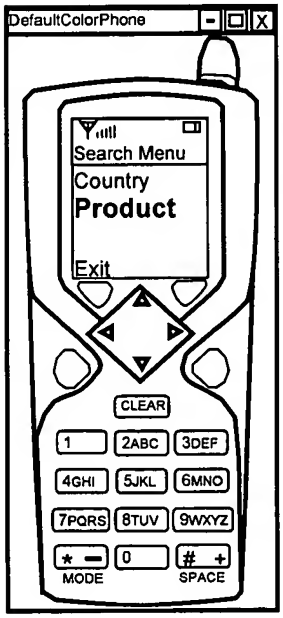


FIGURE 61A

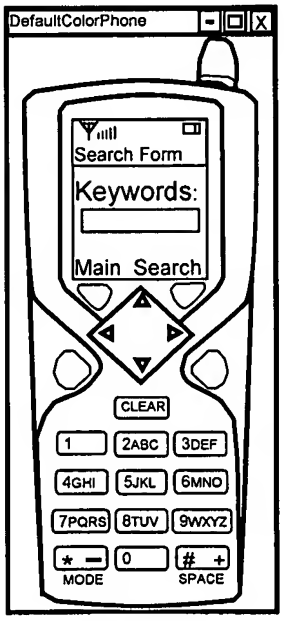


FIGURE 61B

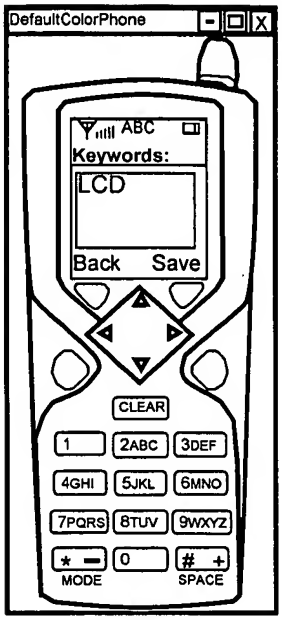


FIGURE 61C

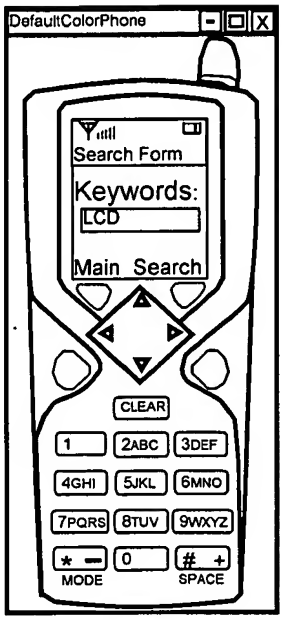


FIGURE 61D

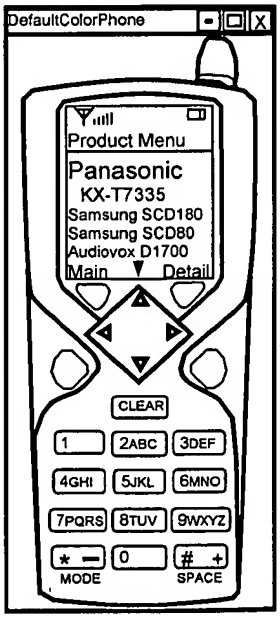


FIGURE 61E

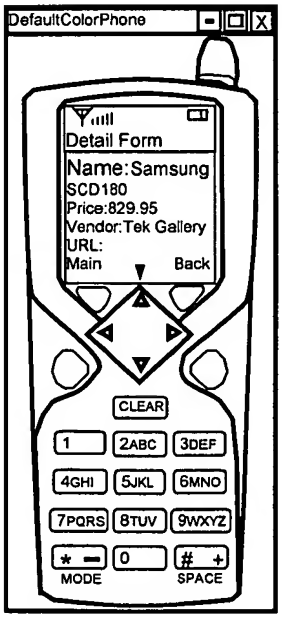


FIGURE 61F

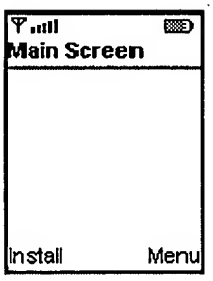


FIGURE 64A

FIGURE 64B

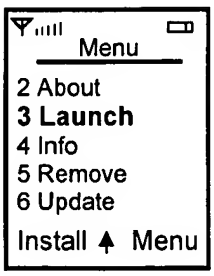


FIGURE 64C

FIGURE 64D

FIGURE 64E

FIGURE 64F

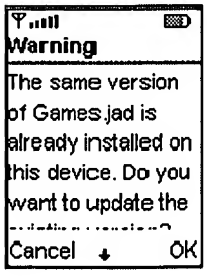


FIGURE 64G

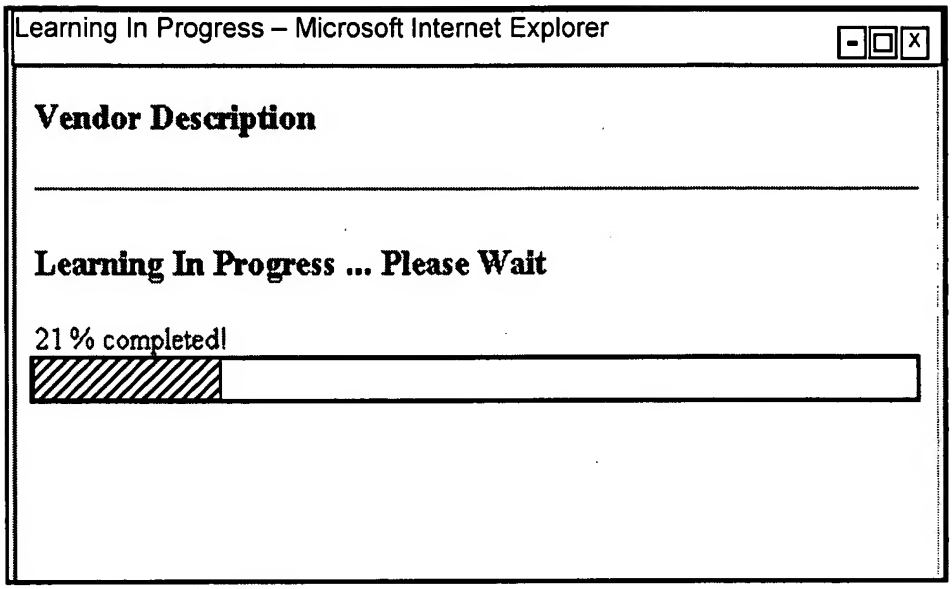
Learning In Progress – Microsoft Internet Explorer
Vendor Description
Learning In Progress ... Please Wait
21 % completed!

FIGURE 65